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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named
Inventor : Brian Pollock et al.

Appln. No. : 09/733,405

Filed : December 8, 2000

For : VIRTUAL TRACKS FOR
REPEATABLE RUNOUT
COMPENSATION

Docket No.: S01.12-0643

Group Art Unit: 174

Examiner:

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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, D.C. 20231

I HEREBY CERTIFY THAT THIS PAPER IS BEING
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PATENT ATTORNEY

Sir:

The patents or publications listed on the enclosed PTO Form-1449 are submitted pursuant to 37 C.F.R. § 1.97. Copies of the patents or publications cited are enclosed.

The information disclosure statement is being filed within the time periods set forth in 37 C.F.R. §197(b). Accordingly, no statement or fee is required.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123. A duplicate copy of this communication is enclosed.

Respectfully submitted,


WESTMAN, CHAMPLIN & KELLY, P.A.

No PTO-1449
for this
IDS

By: 

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FORM PTO-1449		Atty. Docket No.: S01.12-0643	Serial No.: 09/733,405
 <p>LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT</p>		Applicant:	
		Brian Pollock	
		Filing Date	Group Art:
		December 8, 2000	1741

U.S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
AA	3,725,764	4/3/73	Oswald	318	629	
AB	3,863,124	1/28/75	Pierce et al.	318	638	
AC	3,914,541	10/21/75	Elliott	178	6.6	
AD	4,030,132	6/14/77	Iftikar et al.	360	78	
AE	4,103,314	7/25/78	Case	360	78	
AF	4,135,217	1/16/79	Jacques et al.	360	77	
AG	4,149,199	4/10/79	Chick et al.	360	77	
AH	4,217,612	8/12/80	Matla et al.	360	78	
AI	4,314,295	2/2/82	Frandsen	360	106	
AJ	4,329,712	5/11/82	Lang	358	128.5	
AK	4,355,266	10/19/82	Pearson	318	85	

FOREIGN PATENT DOCUMENTS

	Document No.	Date	Country	Class	Sub Class	Translation Yes No
AL	0 130 248 A1	1/9/85	EPO			X
AM	0 540 114 A1	5/5/93	EPO			X
AN	0 549 814 A1	7/93	EPO			X


OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AO	Recording Properties of Multilayered Thin Film Media, by D.C. Palmer, K.E. Johnson, E.Y. Wu, and J.V. Peske, IEEE Transactions On Magnetism, Vol. 27, No. 6, November 1991, pp. 5307-5309.
AP	Evolution of The Soft Error Rate Model, by P. Hardy and D.J. Malone, IEEE Transactions On Magnetism, Vol. 27, No. 6, November 1991, pp. 5313-5315.
AQ	Error Rate Performance of Experimental Gigabit Per Square Inch Recording Components, by T.D. Howell, D.P. McCown, T.A. Diola, Y. Tang, K.R. Hense, and R.L. Gee, IEEE Transactions On Magnetism, Vol. 26, No. 5, September 1990, pp. 2298-2302.

EXAMINER:

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BA	4,371,960	2/1/83	Kroiss	369	43	
BB	4,396,961	8/2/83	Prasad et al.	360	78	
BC	4,414,589	11/8/83	Oliver et al.	360	77	
BD	4,456,934	6/26/84	Wedman et al.	360	78	
BE	4,485,418	11/27/84	Bremner	360	77	
BF	4,497,047	1/29/85	Fujiie et al.	369	45	
BG	4,513,333	4/23/85	Young et al.	360	77	
BH	4,524,397	6/18/85	Bond	360	75	
BI	4,562,494	12/31/85	Bond	360	75	
BJ	4,575,776	3/11/86	Stephens et al.	360	78	
BK	4,605,977	8/12/86	Matthews	360	103	

FOREIGN PATENT DOCUMENTS

	Document No.	Date	Country	Class	Sub Class	Translation Yes No
BL	GB 2 060 217 A	4/27/81	United Kingdom			
BM	DE 3900683A	1/12/89	Germany			
BN	WO 91/06096	5/2/91	PCT			X


OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

BO	A Track Density Model for Magnetoresistive Heads Considering Erase Bands, by J.K. Lee and P.I. Bonyhard, IEEE Transactions On Magnetism, Vol. 26, No. 5, September 1990, pp. 2475-2477.
BP	Demonstration Of 500 Megabits Per Square Inch With Digital Magnetic Recording, by Roy A. Jensen, Joost Mortelmans, and Robin Hauswitzer, IEEE Transactions On Magnetism, Vol. 26, No. 5, September 1990, pp. 2169 - 2171.
BQ	IBM's Next Generation Magnetoresistive Heads, 1987

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CA	4,616,276	10/7/86	Workman	360	77	
CB	4,620,244	10/28/86	Krause	360	77	
CC	4,620,252	10/28/86	Bauck et al.	360	106	
CD	4,633,345	12/30/86	Keener	360	77	
CE	4,636,885	1/13/87	Yamada et al.	360	78	
CF	4,677,602	6/30/87	Okano et al.	369	32	
CG	4,679,103	7/7/87	Workman	360	77	
CH	4,697,127	9/29/87	Stich et al.	318	561	
CI	4,697,213	9/29/87	Kitamura	360	78	
CJ	4,706,250	11/10/87	Patel	371	39	
CK	4,727,533	2/23/88	Erbert	369	112	

FOREIGN PATENT DOCUMENTS

	Document No.	Date	Country	Class	Sub Class	Translation Yes No
CL	WO 93/06595	4/1/93	WIPO			X
CM	WO 97/45833	12/4/97	WIPO			X
CN	1,713,268	3/12/91	England			X


OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

CO	Magnetoresistive Read Magnetic Recording Head Offtrack Performance Assessment, by P.I. Bonyhard and J.K. Lee, IEEE Transactions On Magnetics, Vol. 26, November 1990, pp. 2448 - 2450.
CP	Design Issues For Practical Rigid Disk Magnetoresistive Heads, by P.I. Bonyhard. IEEE, Transactions On Magnetics, Vol. 26, No. 6, November 1990, pp. 3001 - 3003.
CQ	TMR and Squeeze at Gigabit Areal Densities, by Patrick C. Arnett and Don McCown, IEEE Transactions On Magnetics, Vol. 28, No. 4, July 1992, pp. 1984 - 1986.
CR	Window-Shifting Mechanism In Data Separator, IBM Technical Disclosure Bulletin, Vol. 30, No. 6, November 1987.

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Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
DA	4,764,860	8/16/88	Takao	369	43	
DB	4,786,990	11/22/88	Overton et al.	360	65	
DC	4,788,608	11/29/88	Tsujisawa	360	77	
DD	4,791,599	12/13/88	Hethuin et al.	364	728.07	
DE	4,803,572	2/7/89	Haruna et al.	360	60	
DF	4,816,938	3/28/89	Cowen et al.	360	75	
DG	4,822,139	4/18/89	Yshizumi	350	257	
DH	4,878,135	10/31/89	Makino et al.	360	78.04	
DI	4,897,840	1/30/90	Weiss et al.	371	40.1	
DJ	4,924,165	5/8/90	Kohno	318	592	
DK	4,947,272	8/7/90	Yokozawa	360	77	
DL	4,956,831	9/11/90	Sarraf et al.	369	32	
DM	4,965,782	10/23/90	Mathews	369	48	
DN	5,046,060	9/3/91	Chow et al.	369	44.32	
DO	5,055,731	10/8/91	Nihei et al.	310	309	
DP	5,056,074	10/8/91	Tateishi et al.	369	44.28	
DQ	5,062,023	10/29/91	Squire	360	78.04	
DR	5,073,885	12/17/91	Ito et al.	369	44.28	
DS	5,081,552	1/14/92	Glaser et al.	360	98.01	


OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

DT	U.S. Provisional Patent Application No. 60/170,240 entitled "VIRTUAL TRACKS FOR REPEATABLE RUNOUT (RRO) MANAGEMENT" filed December 10, 1999
DU	U.S. Provisional Patent Application No. 60/198,166, entitled "ECCENTRIC SERVO TRACK REFERENCING" filed April 17, 2000

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EA	5,089,757	2/18/92	Wilson	318	560	
EB	5,122,718	6/16/92	Sawata	318	621	
EC	5,146,372	9/8/92	Cronch et al.	360	51	
ED	5,161,077	11/3/92	Jabbari	360	106	
EE	5,164,863	11/17/92	Janz	360	57	
EF	5,185,681	2/9/93	Volz et al.	360	77.05	
EG	5,187,620	2/16/93	Notake et al.	360	77.04	
EH	5,189,578	2/23/93	Mori et al.	360	106	
EI	5,197,058	3/23/93	Bell, Jr. et al.	369	44.28	
EJ	5,198,948	3/30/93	Stover et al.	360	124	
EK	5,204,793	4/20/93	Plonczak	360	97.01	
EL	5,216,559	6/1/93	Springer	360	106	
EM	5,233,487	8/3/93	Christensen et al.	360	77.04	
EN	5,241,433	8/31/93	Anderson et al.	360	77.04	
EO	5,247,501	9/21/93	Hashimoto et al.	369	44.11	
EP	5,257,149	10/26/93	Meyer	360	78.14	
EQ	5,270,885	12/14/93	Satoh et al.	360	77.04	
ER	5,274,511	12/28/93	Ikeda	360	55	
ES	5,287,234	2/15/94	Suzuki	360	78.04	
ET	5,287,225	2/15/94	Jorgenson	360	106	
EU	5,299,026	3/29/94	Vincett et al.	358	401	

FOREIGN PATENT DOCUMENTS


OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

EV	"Automated Tuning Concepts for Iterative Learning and Repetitive Control Laws" by R. Longman et al., <u>PROCEEDINGS OF THE 37TH IEEE CONFERENCE ON DECISION AND CONTROL</u> , pgs. 192-198, (August 1998).
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FA	5,303,105	4/12/94	Jorgenson	360	106	
FB	5,305,160	4/19/94	Funches et al.	360	78.07	
FC	5,311,378	5/10/94	Williams et al.	360	77.03	
FD	5,367,513	11/22/94	Bates et al.	369	44.29	
FE	5,379,171	1/3/95	Morehouse et al.	360	10.5	
FF	5,400,201	3/21/95	Pederson	360	135	
FG	5,404,253	4/4/95	Painter	360	77.04	
FH	5,416,658	5/26/95	Sega et al.	360	106	
FI	5,444,582	8/22/95	Suzuki	360	78.09	
FJ	5,444,583	8/22/95	Ehrlich et al.	360	78.09	
FK	5,455,724	10/3/95	Suzuki et al.	360	77.04	
FL	5,465,182	11/7/95	Ishikawa	360	75	
FM	5,465,183	11/7/95	Hattori	360	78.9	
FN	5,521,773	5/28/96	Suzuki et al.	360	77.04	
FO	5,521,778	5/28/96	Boutaghou et al.	360	106	
FP	5,523,902	6/4/96	Pederson	360	77.80	
FQ	5,535,072	7/9/96	Witt et al.	360	99.06	
FR	5,539,714	7/23/96	Andres, Jr. et al.	369	44.26	


FOREIGN PATENT DOCUMENTS

	Document No.	Date	Country	Class	Sub Class	Translation Yes No
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GA	5,541,784	6/30/96	Cribbs et al.	360	75	
GB	5,550,685	8/27/96	Drouin	360	77.08	
GC	5,553,086	9/3/96	Sompel et al.	371	47.1	
GD	5,576,909	11/19/96	Dierkes et al.	360	78.09	
GE	5,585,976	12/17/96	Pham	360	77.04	
GF	5,602,689	2/11/97	Kadlec et al.	360	78.04	
GG	5,608,586	3/4/97	Sri-Jayantha et al.	360	77.04	
GH	5,610,487	3/11/97	Hutsell	318	560	
GI	5,610,777	3/11/97	Dang et al.	360	77.03	
GJ	5,638,230	6/10/97	Kadlec	360	78.04	
GK	5,646,797	7/8/97	Kadlec et al.	360	75	
GL	5,648,738	7/15/97	Welland et al.	327	307	
GM	5,675,450	10/7/97	Kadlec	360	78.09	
GN	5,677,809	10/14/97	Kadlec	360	78.09	
GO	5,680,272	10/21/97	Kadlec et al.	360	78.04	
GP	5,684,650	11/4/97	Kadlec et al.	360	77.06	
GQ	5,706,265	1/6/98	Bang	369	50	
GR	5,708,581	1/13/98	Martinez	364	164	
GS	5,574,354	5/19/98	Tomita et al.	360	61	

FOREIGN PATENT DOCUMENTS


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HA	5,774,294	6/30/98	Fioravanti	360	75	
HB	5,774,297	6/30/98	Hampshire et al.	360	77.04	
HC	5,777,816	7/7/98	Hampshire et al.	360	77.08	
HD	5,793,559	8/11/98	Shepherd et al.	360	78.09	
HE	5,796,535	8/18/98	Tuttle et al.	360	51	
HF	5,796,542	8/18/98	Szeremeta	360	77.02	
HG	5,815,332	9/29/98	Suzuki et al.	360	48	
HH	5,822,147	10/13/98	Kisaka	360	77.08	
HI	5,825,578	10/20/98	Shrinkle et al.	360	77.08	
HJ	5,826,338	10/27/98	Chilton et al.	30	90.1	
HK	5,828,515	10/27/98	Kim	360	78.06	
HL	5,835,300	11/10/98	Murphy et al.	360	77.05	
HM	5,835,302	11/10/98	Funches et al.	360	78.07	
HN	5,844,743	12/1/98	Funches	360	78.04	
HO	5,854,722	12/29/98	Cunningham et al.	360	77.04	
HP	5,883,749	3/16/99	Park	360	75	

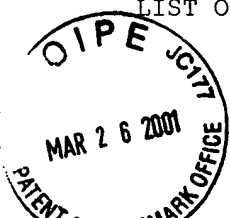
FOREIGN PATENT DOCUMENTS

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IA	5,886,846	3/23/99	Pham et al.	360	78.04	
IB	5,898,286	4/27/99	Clare et al.	318	569	
IC	5,940,239	8/17/99	Lee et al.	360	77.02	
ID	5,940,240	8/17/99	Kupferman	360	77.08	
IE	5,949,605	9/7/99	Lee et al.	360	77.04	
IF	5,949,608	9/7/99	Hunter	360	78.09	
IG	5,956,201	9/21/99	Pham et al.	360	78.09	
IH	5,969,494	10/19/99	Kang	318	610	
II	5,978,169	11/2/99	Woods	360	77.04	
IJ	5,926,338	7/20/99	Jeon et al.	360	77.04	
IK	5,978,169	11/2/99	Woods	360	77.04	
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